

Expert Advice For the Automobile Owner

Queries and Replies Covering Matters of Importance to the Man Who Runs a Car

Is it common practice to regrid the cylinders when a motor is worn or is it better to get new pistons and rings? All depends upon the condition of these parts. Sometimes it is advisable to regrid the cylinders, which is the case when they are worn oval. In this case the fitting of new pistons is a difficult job, and the previous troubles would return again. If the cylinders retain their circularity, then new pistons and rings may be fitted.

Is it a good plan to place graphite in the crank case with the regular oil? Graphite shows excellent results when used as a lubricant for the motor. Its action is one of a filler, the minute holes in the cylinder being filled in with the graphite, thus reducing friction and wear. Some owners use ordinary kake graphite, while others prefer the defeculated form.

There is a wishy-wash sound issuing from the neighborhood of the right front wheel of my car when it is in motion. It seems to occur once every revolution. What can be causing it? There are two very likely causes of such a noise. It may be due to the speedometer gears meshing too tightly or the demountable rim has a wedge loose. Jack up the wheel and rotate it slowly, and you can soon determine whether the gears are too close. If this is the case loosen up the arm that carries the driven gear and move the gear only far enough away so that the noise is eliminated. If the trouble is not found in the speedometer gears tighten up the wedges on the rim. One loose wedge will make a noise similar to that you have described, due to the lack of support at this point.

What, in your opinion, is the best way to crank a motor, with the throttle open or nearly closed? It is preferable to crank the motor with the throttle only opened a small amount, say an inch or an inch and a quarter movement on the quadrant. With some carburetors it is impossible to start the motor with the throttle wide open, while with others it is generally done with difficulty.

I have always been bothered with motor knocking when throttle was opened on a hard pull, necessitating my retarding the spark to the extreme limit, and that, of course, reduced power. I have been told that it was caused by too high compression. Will it help matters to reduce compression by raising the cylinder and placing a plate between to make a larger compression space?

The high compression reason which has been assigned to your case is very possibly correct, although it might be that carbon trouble is at the bottom of the difficulty. If you have noticed that the knocking continues even after the motor has been cleaned of carbon it is probably due to the high compression or to a loose connecting rod, wrist pin or crank shaft bearing or part. It is never a good idea to reduce compression until you are sure that it is too high, and it will be better to have this measured by gauge and see what it really is before attempting to cut it down by means of a plate. A compression pressure of seventy pounds is sufficient, and for ordinary purposes you should not have higher than this. If it is below this a reduction of compression will reduce the power correspondingly, as it influences the mean effective pressure in the cylinder.

If a motor is equipped with a high tension magneto, does each cylinder receive alternately one effective spark and one surplus spark?

The ordinary four cylinder high tension magneto only produces sparks when required—that is, at the beginning of the working stroke. Such a magneto produces a spark every half revolution of the armature, and therefore by connecting it to the motor so that it revolves at the same speed just the right number of sparks are generated, since a four cylinder, four cycle motor requires a spark every half revolution. These sparks are distributed to the proper cylinders in turn by means of a rotating brush which makes consecutive contact with the four segments which are connected to the high tension wires running to each of the four cylinders. The distributor runs at half the speed of the armature, and the two are positively connected by gears. The two are so set that the brush is in contact with one of the segments when the breaker points separate and the spark occurs.

Will you kindly give me any information you can on soldering aluminum?

Aluminum is soldered by the use of a blowtorch. A solder which may be used without a flux is composed of seventy-five and five-tenths parts of tin, eighteen parts of zinc and two and five-tenths parts of aluminum. The parts should be slightly heated before soldering. The solder should be forced in place by means of a stiff metal rod. Another solder which requires a flux, however, is made up of 80 per cent tin and 20 per cent zinc, stearic acid being used as a flux. The objection to soldering aluminum is that the joint is not very strong.

Will you please furnish me with some information regarding brazing processes?

Brazing metals, which means that they are joined by a film of brass, requires a red heat and borax is generally used as a flux to protect the metal from oxidation and to dissolve the oxides formed. Heating must be done by means of a blowtorch, gas forge, coke or charcoal furnace and cannot be done by means of a soldering iron. Before work is assembled for brazing it should be carefully cleaned. The parts are then fastened together, generally by pinning, but sometimes wire bolts or clamps are used. If possible the pieces should be fastened in such a way that the work may be turned over during the process of brazing without changing the relation of the parts.

My motor does not fire regularly. Sometimes it misses on one cylinder and then again two become affected. The missing skips from one cylinder to another. Position of gas and spark levers does not seem to make any difference, and the trouble is equally bad on magneto and battery. Can you explain this?

The missing is undoubtedly caused by faulty ignition of carburetion, and it seems more likely that the former is the cause. First look for short circuits. Operate the motor in the dark at a moderate rate of speed and note whether any sparks jump from any part of the wiring to the motor or frame. Inspect the insulation of all the wires for worn or broken spots where a short circuit to the frame might be produced. Any such spots should be taped or the wires replaced. Next examine the brushes on the magneto. Any that are worn on the ends should be smoothed off or replaced so that a good electrical contact is obtained. See that the breaker points are smooth enough to meet squarely and in adjustment—that is, the gap between them, when they are separated, should be between one-thirty-second and one-sixty-fourth of an inch. Also note whether the insulation in the breaker box is in good condition and whether there is any possibility of a short circuit either due to this or dirt or oil. Take the switch apart and examine the insulation and tighten any loose parts.

Providing all electrical connections are tight and the gaps of spark plugs adjusted to one-thirty-second of an inch, the trouble must be either in the carburetion system or in the coil or magneto. Assuming that the carburetor adjustment is correct, see that there are no air leaks in the intake manifold. Look for dirt in the gasoline system and see that the float is not soaked with gasoline and that the needle valve and float valve or their seats are not worn. While you may drive with the spark lever properly advanced and the magneto may be correctly timed, it is possible that the linkage connecting the spark lever with the magneto is loose, so that when the lever is advanced the breaker box is not acted upon. See that the lubrication system is in proper working order and check up on the valve timing.

What is the cause of carbon? Carbon deposit is caused by the carbon in the oil or gasoline being set free by the heat of combustion. If the mixture is too rich there will not be enough air for combustion of all the carbon in the gasoline, and therefore after the explosion takes place some carbon in the form of a very fine powder will remain. This is caught by the oil on the walls of the combustion chamber, and the heat gums the oil, holding the carbon until the final result is a hard mass of carbon held together by a tough, cement-like gummed oil. In the same way, if too much oil is fed to the motor, an excess reaches the combustion chamber, and the heat burns part of it, but leaves some of the carbon, which remains on the wall until removed.

My car starts badly. It has a four cylinder, 42x55 inch motor, but only a magneto for ignition. The motor works evenly when once under way. If it can be started rolling down grade and then thrown in gear it starts like a dream. Can you suggest a remedy for the trouble? Your magneto is probably causing the trouble, although it is well to make sure that the difficulty does not lie in the carburetor adjustment or is not due to leaky valves. See that the spark plugs' points are 1-32 inch apart, that all connections are tight and that there are no short circuits. Then examine the breaker points on the magneto. File them until they meet squarely, and then adjust them until the motor runs evenly at all speeds. The exact distance depends upon the magneto, but should be somewhere between 1-32 and 1-64 inch. If the points are too far apart the motor will not start or will miss at slow speeds, while if the points are too near together it will miss at high speeds. There is also a chance that the magnets are weak. If so it will be difficult to obtain a spark at low motor speeds. Make sure that all the brushes are making good contact.

credited with the invention of a new delivery which has been named the "Snake Ball." While the ball does not bite the better, it is said to be almost as fearsome. According to the reports of opposing batsmen, the snake floats up to the plate in a series of eccentric circles that give batters a mistaken impression that it is following its course. If the tale be true, it is small wonder that Fielder Jones kicked about the brand or umpire his team received recently.

COLE MOTOR CAR COMPANY HAS BIG SUCCESS

Annual Meeting of Auto Companies Shows Year's Business Above Average.

INDIANAPOLIS, Ind., Aug. 7.—At the annual stockholders' meeting of the Cole Motor Car Company held during the last week in July, the usual cash dividend was declared and a satisfactory amount carried into the surplus account.

The company's annual statement shows that the last year has been one of the best in the history of the company with every indication that the season upon which the concern is now entering will exceed by several million dollars the business of any previous year.

At the present time a most unusual condition exists in the automobile industry, due to an unexpected increase of business at this season of the year, the company is finding it necessary to increase their orders for material which they are fortunately able to do because of their long established connections with large unit builders of known strength and volume of production.

During the last three months of the fiscal year just closed the Cole Motor Car Company shipped approximately 100 cars a week to all parts of this country and including most of the foreign countries.

As the present time records show that the Cole dealers list is larger by far than ever before in the history of the company, due largely to the popular demand for the 1916 Cole "Eight" models, which constitute the greater part of the Cole factory activities at the present time.

While the Cole Motor Car Company will specialize on eight cylinder production, they have at the urgent request of their large distributors in the leading cities continued the production of the standard big six model, shipments of which are now being made regularly.

In speaking of the present situation, President J. J. Cole said: "The Cole company's success of the last year has been largely due to the fact that the Cole motor car has become as standardized in value as in mechanical construction."

It is Mr. Cole's opinion that the public is now demanding cars in which the value does not fluctuate, and this can only be assured by a stability of merchandising policy with correctness of price value as the basis thereof.

Mr. Cole further stated that while the stockholders were naturally gratified at the showing made during the year, despite the unfavorable conditions brought about by the European war, in his opinion the coming year would be by far the best in the history of the industry and that the general feeling of confidence so clearly shown by the present demand for high grade motor cars, which with bumper crops assured by government reports, will bring about a prosperous era for all lines of business, including the manufacturers of automobiles.

PACKARD GETS LEADING PRIZE

Honors Received at Exposition More Significant Than at First Thought.

Latest advices indicate that the Packard awards at the Panama-Pacific international exposition are much more significant than was indicated by the first announcement. The grand prize, which was given to no other automobile company, was awarded by the superior jury for quality of material and workmanship, ingenuity and skill in design and construction, the magnitude of the business represented and the length of time the exhibitor has been engaged in manufacturing.

In addition to the grand prize, the Packard was awarded the first of the three medals of honor. Other exhibitors were the recipients of fifteen gold medals, thirteen silver medals, nine bronze medals and two certificates of honorable mention. The awarding of one of the fifteen gold medals to such a famous car manufacturer is illustrative of the substantial character of the competition.

The honors heaped upon the Packard by the exposition have given added impetus to the storm of public approval which has greeted the new twelve cylinder car recently announced as the "Twin Six." During the first two days of the display of this car at the exposition it was inspected by 25,000 persons.

PUTS QUALITY BEFORE PRICE

Now that most of the motor car companies have made their 1916 announcements there is a great deal of talk in motoring circles concerning the prices at which the new cars are to be sold. Along with these discussions there has also been much talk concerning the lowest price at which a satisfactory motor car can be marketed.

"The average motor car buyer has a tendency to look at these questions from a mistaken perspective," said Harry Sturm, manager of the Clarksburg Automobile Company, local retailer of Buick cars. "A great many of our automobile buying friends do not take sufficient heed to such a

PYTHIANS AT SALEM USING NEW HALL NOW

Which Has Been Modernly Furnished by the Lodge at Great Cost.

SALEM, Aug. 7.—Salem Lodge, No. 70, Knights of Pythias, now occupies its new hall in the Central building which it has leased for a period of years. It held its first ceremonial session in Tuesday night. The lodge recently purchased new furniture for the hall consisting of a fine set of quarter oak altars, pedestals and officers' chairs, leather upholstered, together with suitable rolling chairs, filling the seating capacity of the room.

The lodge recently conducted a membership campaign and increased its membership from 109 to 153 at the end of the semi-annual term of July 1, when the lodge closed, but the growth in membership has gone on with increased momentum, and is nearing the two hundred mark at the present time. C. W. Perine is chancellor commander, V. U. Flowers vice chancellor, and C. A. Schutte keeper of records and seal. W. L. Steele is the representative to the grand lodge, which meets at Charleston late this month.

The Pythian Sisters, the ladies' auxiliary to the Knights of Pythias order, has an active organization here, known as Sunshine Temple No. 21, and it announced a public session Monday night, and will give a public installation of officers, with other

of getting a satisfactory car. They pay the closest attention to price, because price is the thing that concerns them most at the time of making their purchase. Later, however, they find out that motor car service is vastly more important than motor car price.

There is a minimum below which it is impossible to sell a satisfactory motor car; that is, a car that will give satisfactory service. The Buick Motor Company always has been guided by that great truth in making and selling cars. Buick prices are made as low as it is possible to make them, and at the same time deliver a car that will give the motoring satisfaction the average buyer expects.

"Buick cars could be made to sell for less, but they wouldn't be as good as the Buick cars we are now making. We probably could sell a great many more Buicks if we were to make the kind of cars that would justify a lower price, but we prefer to keep our quality standards at their present high level. We are positive that this policy will pay us and pay our customers in the long run."

Last Week of Our Clearance Sale

We positively will wind up sale this week, as we must commence alterations. If you haven't taken advantage of the wonderful values offered come in at once.

SHIRTS

Plenty of large sizes, values up to \$2.50, now

\$1

"It Must Be Right"

Palm Beaches

Any Suit in the House now

\$6.75

THE GENTLE SHOP

H. B. CASAGRANDE, Mgr.

\$15

Any suit in the house - made to measure-coat and pants

\$15

Fourth Street

NEW BUILDINGS ARE REPORTED

West Virginia Construction Operations Listed by Pittsburgh Trade Journal.

PITTSBURGH, Aug. 7.—Building operations in West Virginia are reported as follows by the Construction Record.

Huttonsonton—The Consolidation Coal Company has had bids submitted for building a two-story frame store building and will place the contract about September 1.

Fairmont—Bids closed this week on building a one-story brick building, 29x120 feet, for George H. Nelson. Architect, R. G. Gillis, Jacobs, building made the plans.

Bids will be asked about August 15 for constructing a two-story brick residence to cost about \$8,000 for Mrs. Lulu Fox. Architect A. C. Lyons, Fairmont, made the plans.

Charles Beckman, Fairmont, received the contract to build a two-story residence on the Fairmont pike for J. E. Bonn. No sub-contracts have been retained.

Shenandoah Junction—Bids will be taken by the board of education, J. McGeary, chairman, for building a new brick school building, 20x70 feet, plan for which were made by J. W. Woltz, Waynesboro, Pa.

Wellsburg—The Knights of Pythias and the Independent Order of Odd Fellows will build a lodge building on a site which has just been purchased on Charles street. No architect has been retained.

Architect M. L. Wells, Wellsburg, has been retained to prepare plans for a three-story brick and stone trim store and lodge building 60x100 feet to be built for F. and A. M. Bids may not be taken until next spring.

Martinsburg—Will take bids until August 10 for constructing a one-story brick veneer school building to cost \$30,000 for the board of education.

Beech Glenn—Miss Ida Owens, care Architect George Ebeling, Wheeling, W. Va., will take bids at once on the erection of a two-story brick and stone residence and garage to cost \$8,000.

Parkersburg—Dr. Milton McNeill has having plans made by Architect Frank Upman, Woodward building.

Washington, D. C., for a two-story brick or hollow tile apartment building 30x30 feet. Bids will be taken by the owner about the tenth instant.

Bids close on August 9 for constructing a two-story brick and stone apartment building 21x7 feet on Dodder and Nineteenth street, for Mrs. A. G. Cole, 1709 Seventeenth street. Plans by Architect William H. Patton, Parkersburg.

Roseport—J. D. and J. H. Moore, Huntington, received the contract to build a two-story brick and concrete passenger station for the Chesapeake & Ohio Railroad Company. Cost \$25,000.

Barnesville—The Methodist Episcopal congregation contemplates building a brick and stone trim church, cost about \$10,000. No architect has been retained.

Baxter-Hinkle & Riggs, Grants-town, W. Va., who have the contract to build a two-story brick and stone trim school building, for the board of education, will soon award sub-contracts. The work will cost \$10,000.

Dunbar—Bids will close this week on erecting a two-story brick school building for the board of education of Dunbar. The building will measure 61x62 feet and will cost \$10,000.

FOOTBALL PLAYERS TRAINING

The Rutgers College football squad has been training for some weeks on a specially hired farm with the idea of being in perfect shape, both from a physical and gridiron standpoint, when the season opens next month. Just what Princeton will say about the "Back to the Farm" campaign to this extreme, in case Rutgers defeats the Tigers on October 2, should prove interesting reading.

NORTHVIEW TEAM WINS

The Northview Athletics defeated the Salem team in a fine hitting game on the Northview diamond Saturday afternoon by a score of 9-4. The pitching of Rapp of the Northview team, was the feature of the game, he struck out eleven of the heavy hitting Salem batters. This is the third defeat handed the Salem team by the Athletics this season.

SUPERIOR WORKMANSHIP IS ONE OF THE QUALITY TEST IN OUR TAILORING

"MADE IN CLARKSBURG"

Bloch-Parrish Tailoring Co.

LEADING TAILORS

Masonic Bldg.

CLARKSBURG, W. VA.

RITCHIE COUNTY FAIR

IT'S AT HAND

AUGUST 10, 11, 12, 1915.

and the management predicts immense crowds. Fine Racing. MANY ATTRACTIONS. BE THERE.

SNAKE BALL

Is the Name of Latest Invention of Otis Crandall, Former Giant Pitcher.

Otis Crandall, formerly of the St. Louis Cardinals, is now in the St. Louis Cardinals.